

Application No.: 09/517952

Docket No.: MWS-037RCE2

**AMENDMENTS TO THE CLAIMS**

1.—53. (Canceled)

54. (New) A method for reporting simulation results of a model, said method comprising:  
receiving by a report generator a selection of a template to generate a report reporting simulation results of a model, the template including a plurality of components;  
processing by the report generator the plurality of components;  
issuing by the report generator a plurality of commands to a technical computing environment using a programming language provided by the technical computing environment, wherein one of the plurality of commands instructs the technical computing environment to simulate the model;  
receiving data from the technical computing environment in response to the plurality of commands; and  
generating the report incorporating the received data.

55. (New) The method of claim 54 further comprising:  
issuing by the report generator a command to change a parameter or an initial condition of the model simulation.

56. (New) The method of claim 54 further comprising:  
issuing by the report generator a command to increment the model simulation by one or more time steps.

57. (New) The method of claim 54 further comprising:  
issuing by the report generator a command to modify the model by adding or removing a function block.

58. (New) The method of claim 54 further comprising:  
controlling by the report generator the simulation of the model; and  
generating the report on a state of the simulation at a specified time step.

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59. (New) The method of claim 54, wherein the model is simulated by a simulator that interacts with the technical computing environment.
60. (New) The method of claim 54 further comprising:  
creating the template using the plurality of components.
61. (New) The method of claim 54 further comprising:  
generating an intermediate representation of the report.
62. (New) The method of claim 54 further comprising:  
executing an external process to change a state of a calculation workspace of the technical computing environment.
63. (New) The method of claim 54, wherein the template is recursively defined.
64. (New) The method of claim 54 further comprising:  
evaluating, by the report generator, expressions in a calculation workspace of the technical computing environment, wherein the expressions are defined using the programming language of the technical computing environment.
65. (New) The method of claim 54, wherein a subset of the components define a reporting programming language having flow control constructs.
66. (New) The method of claim 54, wherein the components are defined using an object orientated programming language.
67. (New) A system for reporting simulation results of a model, said system comprising:  
a simulator for simulating a model;  
a technical computing environment that interacts with the simulator, the technical computing environment includes a calculation workspace that stores definitions and data of the model; and

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a report generator that controls the simulation of the model and issues a plurality of commands to the technical computing environment using a programming language of the technical computing environment, wherein the report generator includes a generation engine that generates a report including data provided by the technical computing environment in response to the plurality of commands.

68. (New) A medium storing computer executable instructions for reporting simulation results of a model, the instructions include the instructions for:

receiving by a report generator a selection of a template to generate a report reporting simulation results of a model, the template including a plurality of components;

processing by the report generator the plurality of components;

issuing by the report generator a plurality of commands to a technical computing environment using a programming language provided by the technical computing environment, wherein one of the plurality of commands instructs the technical computing environment to simulate the model;

receiving data from the technical computing environment in response to the plurality of commands; and

generating the report incorporating the received data.